

ABSTRACT OF THE DISCLOSURE

A die through hole has an inside surface including a bell portion, an approach portion, and a bearing portion from the entrance side. The diameter of the approach portion is D1 on its entrance side and D2 on its exit side and gradually decreases from the entrance side to the exit side. The diameter satisfies Equation (1): $0.7 \leq D2/D1 < 0.97$. The die half angle of an inside surface where the diameter D3 is $D2/0.97$ is not less than the die half angle R2 of an inside surface nearer to the approach portion exit side than the inside surface where the diameter is D3. The axial distance LR from the inside surface where the diameter is D3 to the inside surface where the diameter is D2 satisfies Equation (2): $20 \leq LR/((D3-D2)/2) \leq 115$. The through hole diameter at the bearing portion is fixed at D2, and the length is LB and satisfies Equation (3): $0.3 \leq LB/D2 \leq 10$.